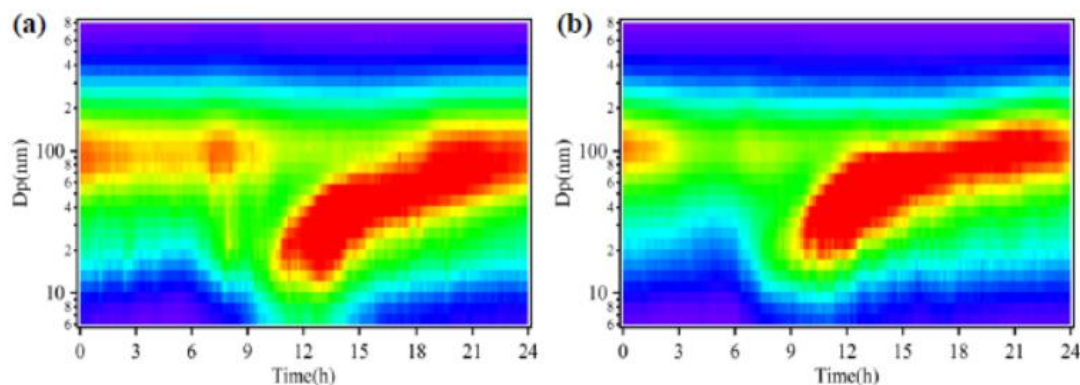


(1) As shown in Figure 4, the number concentration of 6-15 nm particles is relatively low during the NPF events. Typically, the newly formed particles have smaller size in the beginning and grow to larger sizes later. An explanation is needed here. Such explanation could help us understand why the formation rate at the SORPES station is smaller compared to Beijing and Shangdianzi stations (see Line 5-10 (12503) in MS)



Response: The Figures (Fig. 4) shown above are the averaged diurnal pattern of aerosol size. As some days are non-event days (56% of sampling days) with low number concentration (NC) of nucleation mode particles but experienced particle growth, the average caused relatively low 6-15 nm particles, which is different from typical NPF events at the SORPES station such as that shown by Hermann et al. (2014). However, we did find that for some cases J_6 is lower than J_{10} . One possible reason could be due to more loss of small particles in the DMPS, as that described in Appendix, and also could be due to a stronger new particle formation in high altitude which was mixed down to sampling height as that explained by Yli-Juuti et al.(2011). We will add some discussions to address this point in the revised manuscript.

(2) In table 3, the unit of PM_{2.5} should be $\mu\text{g}/\text{m}^3$.

Response: Thanks. We will correct the unit and make a check throughout the manuscript.

Reference:

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